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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,594	05/23/2001	Jorg Rheims	VOI0189.US	9308

7590 01/31/2006  
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EXAMINER

HUG, ERIC J

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/863,594	<b>Applicant(s)</b> RHEIMS ET AL.	
	<b>Examiner</b> Eric Hug	<b>Art Unit</b> 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 13, 14 and 19 is/are rejected.
- 7) ☒ Claim(s) 5 and 15-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

The following is in response to the amendment filed on November 21, 2005.

***Claim Objections***

Currently amended claim 1 now recites the step of "passing the treated fiber stock suspension to a paper machine and producing the at least one of paper and cardboard with the treated fiber stock suspension". This is not a step of the disclosed process for treating a fiber stock suspension, but rather is a step performed on the suspension after the treating. This step is actually part of the overall process for producing at least one of paper and cardboard.

***Claim Rejections - 35 USC § 112***

Claims 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites "wherein the fluffer is used for pre-treating the fiber stock suspension". It is uncertain what is meant by "pre-treatment". It is also uncertain what follows the claimed "pre-treatment", as nothing else is claimed. Pre-treatment can be considered as being any processing step that proceeds another processing step.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4, 6-11, 13, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al (US 6,074,524).

Wu discloses fluff pulp products that are obtained by defiberizing pulp suspensions under low energy conditions which provides the pulp fibers with high surface area. The fibers are not refined or are only lightly refined. The defiberization advantageously allows for attachment of filler particles to the fibrous surfaces. Also, the presence of filler in the suspension allows for a lower defiberization energy. See the difference between the fibers of Figures 2A (untreated) and 2B (treated). Wu teaches that the low-energy defiberized pulps are preferable over highly refined pulps in producing fluff pulps. Wu discloses using a Kamas Laboratory mill. The defiberization energy requirement of Wu is less than 90 kJ/kg (column 15, lines 15-17). This reads on the claimed energy requirement as shown below:

$$1000 \text{ kJ} = 0.277 \text{ kWh}$$

$$1000 \text{ kg} = 1.1 \text{ ton (assuming 'ton' is an English ton, rather than a metric ton)}.$$

$$90 \text{ kJ/kg} = 90 \text{ kJ/kg} * (0.277 \text{ kWh}/1000\text{kJ}) * (1000 \text{ kg}/1.1 \text{ t}) = 22.72 \text{ kWh/t},$$

which falls between the claimed 5-200 kWh/t.

Example 5 (column 12) provides for the use of calcium carbonate. It is noted that Wu does not disclose the pH of the fiber suspension being between 10-13, however, it would have been obvious to one skilled in the art to have a high pH to prevent dissolution of calcium carbonate during fiber treatment.

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All other claimed features are disclosed by Wu or are obvious (i.e., room temperature and atmospheric pressure read on the claimed ranges of temperature and pressure) or are obvious variations of known result effective variables (*In re Boesch*, 205 USPQ 215 (CCPA 1980) where it was held that the discovery of an optimum value of a known result effective variable without producing any new or unexpected results is within the skill of the routineer in the art).

***Allowable Subject Matter***

Claims 5 and 15-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 5 and 18 are allowable for the recitation of features pertaining to the fluffer.

Claim 15-17 are allowable for providing  $\text{Ca(OH)}_2$  as an additive.

***Response to Arguments***

Applicant's argument filed August 3, 2005 have been fully considered.

The arguments have overcome the rejections set forth previously. Accordingly the rejection under 35 U.S.C. 103(a) over Klungness et al (US 5,223,090) in view of Wu et al (US 6,074,524) and LaRiviere (US 6,077,396) has been withdrawn. It is recognized at least that the claimed process is not an obvious modification of the process of Klungness, but rather a process which can be used in conjunction with Klungness.

Regarding the rejection presented above, Applicant's arguments regarding Wu are pertinent. It is noted in those arguments, Applicant relies upon features which are not recited in the rejected claims. The process of Wu is differentiated as being a process for filler attachment to the surface of fibers rather than filler loading of fibers. However, the claims are directed towards merely "a process of treating a fiber stock suspension for at least one of paper and cardboard production". There is nothing claimed directed to filler loading of fibers. The claims are open to a process such as that disclosed by Wu. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). It is also noted that the claimed process does not necessarily result in filler loading, per se, particularly if the claimed process is a pre-treatment for a filler loading process such as that of Klungness.

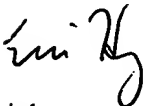
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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